IN THE CLAIMS:

Please amend the claim as follows:

1. (Currently Amended) A method for maintaining a mode-locked state of a Fabry-Perot (FP) laser, the method comprising the steps of:

a) setting a lasing-mode interval of the FP laser to be ~~substantially~~ less than ~~a~~ 3dB linewidth of the light received therein;

b) spectrum-slicing incoherent light generated from a light source element and injecting the spectrum-sliced light to the FP laser; and,

c) amplifying and outputting only a lasing mode coinciding with the wavelength of the injected light by the FP laser.

2. (Original) The method as set forth in claim 1, wherein the lasing-mode interval of the FP laser exceeds half the 3dB linewidth of the injected light, so as to prevent two or more lasing modes from existing inside the 3dB linewidth of the injected light.

3. (Original) The method as set forth in claim 1, wherein the lasing-mode interval of the FP laser is controlled by controlling the length of a laser cavity of the FP laser.

4. (Original) The method as set forth in claim 1, wherein the injected light has a left-right asymmetric spectrum with respect to a central wavelength thereof, so as to prevent two or more lasing modes from existing inside the 3dB linewidth of the injected light.

5. (Original) The method as set forth in claim 1, wherein the light source element includes an ASE (Amplified Spontaneous Emission) source.

6. (Original) The method as set forth in claim 1, wherein the lasing-mode interval of the FP laser is set so that at least one lasing mode exists inside the 3dB linewidth of the injected light irrespective of changes in external temperature.

7. (Currently Amended) A WDM (Wavelength Division Multiplexing) light source comprising:

a light source element;

a Fabry-Perot (FP) laser for amplifying and outputting only a lasing mode coinciding with a wavelength of light injected to the FP laser, while suppressing lasing modes not coinciding with the wavelength of the injected light;

a WDM device for spectrum-slicing light generated from the light source element, for providing the spectrum-sliced light as the injected light to the FP laser, and for multiplexing a signal mode-locked by the FP laser; and,

a circulator for inputting the light generated from the light source element to the WDM device and outputting the signal multiplexed by the WDM device to a transmission link,

wherein a lasing-mode interval of the FP laser is set to be ~~substantially~~ less than ~~a~~ 3dB linewidth of the injected light, so that at least one lasing mode exists inside the 3dB linewidth of the injected light, thereby maintaining a mode-locked state of the FP laser irrespective of changes in external temperature.

8. (Original) The WDM light source as set forth in claim 7, wherein the lasing-mode interval of the FP laser exceeds half the 3dB linewidth of the injected light, so as to prevent two or more lasing modes from existing inside the 3dB linewidth of the injected light.

9. (Original) The WDM light source as set forth in claim 7, wherein the lasing-mode interval of the FP laser is controlled by controlling the length of a laser cavity of the FP laser.

10. (Original) The WDM light source as set forth in claim 7, wherein the injected light has a left-right asymmetric spectrum with respect to a central wavelength thereof, so as to prevent two or more lasing modes from existing inside the 3dB linewidth of the injected light.

11. (Original) The WDM light source as set forth in claim 7, wherein the light source element includes an incoherent light source.

12. (Original) The WDM light source as set forth in claim 11, wherein the incoherent light source includes an ASE (Amplified Spontaneous Emission) source.

13. (Original) The WDM light source as set forth in claim 7, wherein the WDM device includes a 1 x N AWG (Arrayed Waveguide Grating).